Amendments to the Claims:

This listing of claims will replace all prior versions and listings, of claims in the application:

List of Claims:

1. (Currently Amended) A computerized method for calculating at least one potential past optimum yield for at least one configurable space, comprising:

obtaining at least one set of past demands including both past transient demands and past group demands for the at least one configurable space for at least one designated time period, the at least one configurable space comprising transient individual space, group individual space, and group function space; the set of past demands comprising information on arrival date, length of stay, rate category and room type requests for the transient individual space and group individual space; and

calculating, by a processor, at least one potential past optimum yield that includes both at least one transient yield from the transient individual space, and at least one group yield from the group individual space and the group function space, wherein the calculating comprises:

determining constraints related to the at least one configurable space;

determining bounds related to the at least one configurable space;

identifying which past demands for the at least one configurable space should have been accepted in order to optimize the at least one potential past optimum yield, subject to the constraints and the bounds; and

determining the at least one potential past optimum yield utilizing the at least one set of past demands;

wherein the yield that could have been realized for a given demand amount had optimal decisions on whether to accept or deny a demand been made is compared to yield actually realized.

2. (Previously Presented) The method of claim 1, wherein the identifying is performed using at least one mixed integer linear programming technique.

3. (Previously Presented) The method of claim 1, wherein the at least one potential past optimum yield comprises revenue.

4. (Previously Presented) The method of claim 1, wherein the at least one potential past optimum yield comprises profit.

5. (Previously Presented) The method of claim 1, further comprising assigning at least one small value as a cost of at least one transient upgrade, and including the at least one small value in the at least one transient yield.

6. (Previously Presented) The method of claim 1, further comprising comparing at least one actual total yield to the at least one potential past optimum yield.

7. (Previously Presented) The method of claim 1, further comprising:

determining at least one upper bound transient constraint, the at least one upper bound transient constraint ensuring that more transient individual space than available is not assigned.

8. (Previously Presented) The method of claim 7, wherein the at least one upper bound transient constraint is $x.AD(i).LS(i).RC(i).RT(i) \leq N(i)$, and wherein i is a transient demand, xAD(i).LS(i).RC(i).RT(i) is an integer value representing a number of demands i that are accepted, AD is an arrival date, LS is a length of stay, RC is a rate category, RT is a room type, and N(i) is a number of sleeping rooms associated with demand i.

9. (Previously Presented) The method of claim 5, further comprising:

determining at least one transient upgrade constraint that ensures that at least one assigned transient individual space is at least as high as at least one requested transient individual space.

10. (Previously Presented) The method of claim 9, wherein the at least one transient upgrade constraint is:

$$\sum_{ART \geq RT(i)} y.AD(i).LS(i).RC(i).RT(i).ART \geq x.AD(i).LS(i).RC(i).RT(i).$$

and wherein i is a transient demand, y.AD(i).LS(i).RC(i).RT(i).ART are room allocation variables that represent a number of rooms of allocated room type ART that are allocated to each transient demand i, xAD(i).LS(i).RC(i).RT(i) is an integer value representing a number of demands i that are accepted, AD is an arrival date, LS is a length of stay, RC is a rate category, and RT is a room type.

11. (Previously Presented) The method of claim 1, further comprising:

determining at least one transient yield constraint, incorporating transient individual space yield information.

12 (Previously Presented) The method of claim 11, wherein the at least one transient yield constraint is

$$\sum_{i} Y(i)x.AD(i).LS(i).RC(i).RT(i)$$

wherein Y(i) is the yield associated with transient demand i, AD is an arrival date, LS is a length of stay, RC is a rate category, and RT is a room type.

13. (Previously Presented) The method of claim 5, further comprising:

determining at least one total transient upgrade constraint that comprises at least one total number of individual spaces where at least one upgrade was assigned.

14. (Previously Presented) The method of claim 13, wherein the at least one total transient upgrade constraint is

$$\sum_{i} \sum_{ART>RT(i)} Y(i)x.AD(i).LS(i).RC(i).RT(i)$$

wherein Y(i) is a yield associated with transient demand i, xAD(i).LS(i).RC(i).RT(i) is an integer value representing a number of demands i that are accepted, AD is an arrival date, LS is a length of stay, RC is a rate category, RT is a room type, and ART is an allocated room type.

15. (Previously Presented) The method of claim 1, further comprising:

determining at least one space protection constraint that ensures that more individual space and function space than available is not assigned.

16. (Previously Presented) The method of claim 15, wherein the at least one space protection constraint is

$$\sum_{i|\ AD(i)\le SD(i),AD(i)+LS(i)\ge SD,ART=RT} y.AD(i).LS(i).RC(i).RT(i).ART + \sum_{OID} \sum_{rt|\ ART(rt)=RT} yOpp.OID.SD.RT.ART(RT)$$

and wherein i is a transient demand, y.AD(i).LS(i).RC(i).RT(i).ART are room allocation variables that represent a number of rooms of allocated room type ART that are allocated to each transient demand i, yOpp.OID.SD.RT.ART(RT) represents a number of rooms of allocated room type ART that are allocated to fill each accepted group demand OID, AD is an arrival date, LS is a length of stay, RC is a rate category, and RT is a room type.

17. (Previously Presented) The method of claim 5, further comprising:

determining at least one group space opportunity constraint that ensures that at least one group opportunity is fully satisfied before being accepted.

18. (Previously Presented) The method of claim 17, wherein the at least one group space opportunity constraint is

$$\sum_{ART \ge RT} yOpp.OID.SD.RT.ART(RT) \ge N(OID,DS,RT)wOpp.OID$$

wherein yOpp.OID.SD.RT.ART(RT) represents a number of rooms of allocated room type ART that are allocated to fill each accepted group demand OID, N(OID,DS,RT) represents a number

of rooms associated with accepted group demand OID, wOpp.OID are a number of rooms allocated to fill each accepted group demand OID, DS is a stay date, AD is an arrival date, LS is a length of stay, RC is a rate category, and RT is a room type.

19. (Previously Presented) The method of claim 1, further comprising:

determining at least one group yield constraint that incorporates individual space cost information and function space cost information for at least one group opportunity.

20. (Previously Presented) The method of claim 19, wherein the at least one group yield constraint is

$$\sum_{OID} Y(OID)wOpp.OID$$

wherein Y(OID) is the yield associated with the group demand OID, and wOpp.OID are a number of rooms allocated to fill each accepted group demand OID.

21. (Previously Presented) The method of claim 1, further comprising:

determining at least one function space constraint that ensures that at least one particular function space is not used more than once during a given time period.

22. (Previously Presented) The method of claim 21, wherein the at least one function space constraint is

$$\sum_{SS \epsilon C(SS)} sscfu.DP.SS \leq 1$$

wherein sscfu.DP.SS represents whether indivisible specific space (SS) is being used during a specific day part (DP), and C(SS) represents a set of all spaces that conflict with space SS.

23. (Previously Presented) The method of claim 1, further comprising:

determining at least one assigned function space constraint that ensures that at least one assigned function space is at least as big as at least one requested function space.

24. (Previously Presented) The method of claim 23, wherein the at least one assigned function space constraint is

$$tsa.DP.TST = \sum_{SS \epsilon C(TST)} sscfu.DP.SS$$

wherein tsa.DP.TST represents a target space available of a given target space type, sscfu.DP.SS represents whether indivisible specific space (SS) is being used during a specific day part (DP), and C(TST) represents a set of all indivisible specific spaces that produce target space type TST.

25. (Previously Presented) The method of claim 5, further comprising:

determining at least one upgrade function space constraint that ensures that transient upgrades and group upgrades are not given when not necessary.

26. (Previously Presented) The method of claim 25, wherein the at least one upgrade function space constraint is

$$\sum_{OID} N(OID, DP, TST)wOpp.OID + \sum_{RTST|ATST=TST} upg.DP.RTST.ATST - \sum_{ATST|RTST=TST} upg.DP.RTST.ATST \leq tsa.DP.TST.$$

wherein N(OID, DP, TST) represents a number of target spaces of target space type TST demanded by opportunity ID OID during day part DP, wOpp.OID represents whether an opportunity is accepted or turned down, upg.DP.RTST.ATST represents an upgrade from a requested target space type to an assigned target space type, and tsa.DP.TST represents target space available for a given target space type.

27. (Previously Presented) The method of claim 5, wherein the bounds comprise:

setting the amount of accepted transient individual spaces to greater than or equal to 0;

setting the amount of assigned transient individual spaces to greater than or equal to 0;

setting the amount of assigned group individual spaces and group function spaces to greater than or equal to 0;

setting the value of group opportunities to greater than or equal to 0, and less than or equal to 1;

setting the value of group function space greater than or equal to 0, and less than or equal to 1;

setting the value of space protection to greater than or equal to 0, and less than or equal to the amount of individual space available; or

any combination thereof.

28. (Currently Amended) A computer system for calculating a potential past optimum yield for an entity for a set of demands including both transient demands and group demands comprising:

a processor;

a memory for storing a set of demands,

the memory connected to the processor;

wherein the processor is configured for:

obtaining at least one set of past demands including both past transient demands and past group demands for at least one configurable space for at least one designated time period, the at least one configurable space comprising transient individual space, group individual space, and group function space; the set of past demands comprising information on arrival date, length of stay, rate category and room type requests for the transient individual space and group individual space; and

calculating, by a processor, at least one potential past optimum yield that includes both at least one transient yield from the transient individual space, and at least one group yield from the group individual space and the group function space, wherein the calculating comprises:

determining constraints related to the at least one configurable space;

determining bounds related to the at least one configurable space;

identifying which past demands for the at least one configurable space should have been accepted in order to optimize the at least one potential past optimum yield, subject to the constraints and the bounds; and

determining the at least one potential past optimum yield utilizing the at least one set of past demands.

wherein the yield that could have been realized for a given demand amount had optimal decision on whether to accept or deny a demand been made is compared to yield actually realized.

29. (Cancelled)

30. (Currently Amended) The method of Claim 1, further comprising determining at least one configuration of the at least one configurable space that satisfies the at least one set of past demands.

31. (Previously Presented) The method of Claim 30, wherein the at least one group function space is configured.